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| APPLICATION NO. | FIL | ING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------------|----------------------|------------|----------------------|----------------------|------------------|
| 10/720,453 | 0/720,453 11/24/2003 | | Vladimir Fuflyigin | 13445-026001 / OG-16 | 4085 |
| 26161 | 7590 | 07/22/2005 | | EXAMINER | |
| FISH & RICHARDSON PC P.O. BOX 1022 | | | | TUROCY, | DAVID P |
| MINNEAPOLIS, MN 55440-1022 | | | | ART UNIT | PAPER NUMBER |
| | | | | 1762 | |

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|---|--|--|------------------|--|--|--|
| Office Action Summary | 10/720,453 | FUFLYIGIN, VLADIMIF | ₹ | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| The MAILING DATE of this communication and | David Turocy | 1762 | | | | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | orrespondence addres | .S ₂₀ | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply if NO period for reply is specified above, the maximum statutory period was a proper or the provided of the period for reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 86(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI | nely filed s will be considered timely. the mailing date of this commu D (35 U.S.C. § 133). | nication. | | | |
| Status | | | • | | | |
| 1) Responsive to communication(s) filed on 13 Ju | <u>ıne 2005</u> . | | • | | | |
| | action is non-final. | | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | • | | | | | |
| 4) ⊠ Claim(s) 1 and 3-48 is/are pending in the application 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1 and 3-48 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or | vn from consideration. | | • | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acce Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex | epted or b) objected to by the liderating or b) objected to by the liderating of being or bei | e 37 CFR 1.85(a). jected to. See 37 CFR 1 | , . | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list | s have been received. s have been received in Applicati ity documents have been receive ı (PCT Rule 17.2(a)). | on No ed in this National Stag | e · | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | | | | | |

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DETAILED ACTION

Response to Amendment

1. The applicant's amendments, filed 6/13/05, have been fully considered and reviewed by the examiner. The examiner notes the amendment to claim 1 to include the limitation of cancelled claim 2 and the addition of new claims 47 and 48. Claims 1, 3-48 are pending.

Response to Arguments

2. Applicant's arguments filed 6/13/2005 have been fully considered but they are not persuasive.

The applicant has argued against the Katsuyama et al reference stating that the reference teaches of method that have solved the problems of contamination of impurities and therefore one would not be motivated to modify Katsuyama with the teachings of Ellison et al, where the PECVD method eliminates the problem of unwanted decomposition of reactant materials leading to physical defects in the glass. The examiner respectfully disagrees. While the examiner acknowledges Katsuyama teaches of solving problems dealing with impurities, the impurities are directed to those associated within the starting material rather then the impurities developed during the reaction. Therefore, while Katsuyama teaches of solving a problem of impurities in the starting material, Ellison is directed to solving the problem of impurities associated with the reaction of the precursor materials. Therefore one of ordinary skill in the art, taking the references collectively, would be motivated to modify Katsuyama to utilize the

PECVD method as taught by Ellison to alleviate the problem of unwanted decomposition of reactant materials. Please note that the test of obviousness is not an express suggestion of the claimed invention in any or all references, but rather what the references taken collectively would suggest to those of ordinary skill in the art presumed to be familiar with them (*In re Rosselet*, 146 USPQ 183).

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In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The applicant has argued against the Katsuyama reference stating they do not teach of changing the first compound into a second compound reactive with the first material. In addition the applicant argues Katsuyama teaches of a CVD process, where the precursors react with each other rather then reacting with the glass tube material. However, such an argument is not commensurate in scope with the claims. The claim does not require that the raw material is exposed to conditions so as to react with the first material, but rather the raw material is changed into a second compound, which *is reactive* with the first material. In other words, the claim as written requires no reaction

between the first material and the second compound, but only requires a reactive

second compound. It is the examiners position that the process of Katsuyama results in at the least reaction intermediates that are reactive with the first material.

The applicant has argued against the combination of Katsuyama and Ellison, stating Katsuyama teaches of depositing a chalcogenide onto a non-chalcogenide glass and Ellison teaches of doping oxide glass with chalogen elements. While Katsuyama teaches of depositing a chalcogenide onto another glass, Katsuyama also teaches of depositing two layers of chalcogenide. However, because Ellison discloses in the abstract that chalcogenide glass has a higher refractive index than oxide glass and at col. 9, lines 49-54 that some of the inner layers may have higher refractive indexes than smaller radius layers. Taking the references collectively, it would have been obvious to have deposited an oxide glass having lower refractive index as one the inner layers after depositing the higher refractive index chalcogenide glass.

Claim Rejections - 35 USC § 112

- 3. The following is a quotation of the first paragraph of 35 U.S.C. 112:
 - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 4. Claim 47 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 47 contains subject matter, in particular

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non-chalcogenide glass, which was not described in the specification. It appears as though the specification has support for a second glass as an oxide glass, a species of non-chalcogenide glass, the specification fails to properly support the entire genus of non-chalcogenide glasses as the second glass.

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 1, 3-12, 17-21, 25-33, 35-41, and 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085 in view of Ellison et al. (6,542,690).

EP '085 in view of Ellison teach all the limitations of these claims as discussed in the office action dated 2/09/2005 and for the reasons set forth in section 2 above.

7. Claims 13-16 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085 in view of Ellison as applied above and further in view of Aslami (4,212,663).

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EP '085 in view of Ellison and further in view of Aslami teach all the limitations of these claims as discussed in the office action dated 2/09/2005 and for the reasons set forth in section 2 above.

8. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085 in view of Ellison as applied above and further in view of EP 955273 (EP 273).

EP '085 in view of Ellison and further in view of EP '273 teach all the limitations of these claims as discussed in the office action dated 2/09/2005 and for the reasons set forth in section 2 above.

9. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085 in view of Ellison as applied above and further in view of Francis et al. (5,609,660).

EP '085 in view of Ellison and further in view of Francis teach all the limitations of these claims as discussed in the office action dated 2/09/2005 and for the reasons set forth in section 2 above.

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Conclusion

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10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 6788864 by Ahmed et al. teaches of application of oxide glasses onto chalcogenide glass.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Turocy AU 1762

SUPERVISORY PATENT EXAMINER

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